UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID A. SELBY

Appeal 2007-0568
Application 09/628,400
Technology Center 3600

Decided: October 29, 2007

Before MURRIEL E. CRAWFORD, JENNIFER D. BAHR, and LINDA E. HORNER, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

David A. Selby (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-26, all the pending claims. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

Appellant's claimed invention is directed to purchasing and reservation systems for improving yield management with respect to perishable commodities such as airline seats, hotel rooms, and the like (Specification 1:5-7). Independent claim 1 is representative of the claimed invention and reads as follows:

> 1. A method, using a processing device, for materialization forecasting with respect to reservations made by persons for the potential purchase of a particular perishable commodity, comprising the steps of:
>
> gathering past system-wide reservation information relating to past reservations for perishable commodities that have already perished, said system-wide past reservation information including information unrelated to said particular perishable commodity;
>
> gathering current reservation information relating to current reservations for said particular perishable commodity, which current reservation has not yet perished;
>
> comparing said gathered past system-wide reservation information unrelated to said particular perishable commodity and said current reservation information using said processing device;
>
> calculating, based on said comparison, the likelihood that said current reservations will materialize; and
>
> outputting, using said processing device, materialization forecast results based on said calculated likelihood.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Jung	US 4,775,936	Oct. 04, 1988
Whitesage	US 5,191,523	Mar. 02, 1993
Eldering	US 6,298,348 B1	Oct. 02, 2001

The following rejections are before us for review.

Claims 1-26 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Appellant regards as the invention.

Claims 1, 2, 14, and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jung.

Claims 3-11 and 16-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jung in view of Eldering.

Claims 12, 13, 25, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jung in view of Eldering and further in view of Whitesage.

The Examiner provides reasoning in support of the rejections in the Answer (mailed June 20, 2006). Appellant presents opposing arguments in the Appeal Brief (filed November 21, 2005) and Reply Brief (filed August 18, 2006).

OPINION

The Indefiniteness Rejection

The Examiner contends the claims are indefinite because the language "information unrelated to said particular perishable commodity" is vague and indefinite (Ans. 11). According to the Examiner, it is unclear what

types of information meet this limitation. *Id*. Therefore, the threshold issue in this appeal is whether this language can be given any reasonable meaning so as to permit the metes and bounds of the claims to be ascertained.

The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.,* 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986) (citations omitted). A claim may be invalid for indefiniteness if it is "insolubly ambiguous" and not "amenable to construction." *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375, 60 USPQ2d 1272, 1276 (Fed. Cir. 2001). "Thus, the definiteness of claim terms depends on whether those terms can be given any reasonable meaning." *Datamize LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347, 75 USPQ2d 1801, 1804 (Fed. Cir. 2005).

As we understand it, the Examiner's difficulty with the scope of the claims stems from the fact that the term "unrelated," ordinarily understood to mean not "connected or associated, as by origin or kind" (*Webster's New World Dictionary* 1198 (David B. Guralnik ed., 2nd Coll. Ed., Simon & Schuster, Inc. 1984)), is a relative or subjective term. In other words, strictly speaking, a relationship of some type can be found between any two people, things, or topics. Consequently, depending on the remoteness of such relationships, some might consider two such people, things, or topics to be related while others might consider those same two people, things, or topics to be unrelated. In a case such as this, we must determine whether Appellant's Specification supplies some standard for measuring the scope of the phrase "information unrelated to said particular perishable commodity"

as used in Appellant's claims. *See Datamize*, 417 F.3d at 1351, 75 USPQ2d at 1807.

Appellant's Specification does not expressly define the term "unrelated" in the context of "information unrelated to said particular perishable commodity." In fact, Appellant's Specification does not use this terminology outside of the claims. Appellant's Specification does teach, however,

> in contrast to the prior art systems, which simply compares the past booking history of, e.g., Flight 250 from Philadelphia to London, the present invention examines *all* flights which have similar characteristics to those of the current reservation, not just Flight 250. For example, assume that over the past two years the reservations for Flight 250 from Philadelphia to London have a materialization rate of 60%. Assume further that the current reservation request for Flight 250 being processed by current reservation processor 316 is for a non-stop, Philadelphia-to-London flight, pleasure travel, two adults and one child, one month from reservation to travel date, payment made by credit card at time of reservation, reservation made by direct contact between the consumer and the airline. Using the present invention, the data warehouse 300 is searched for *all* previous reservations having the same attributes, and the materialization information for *all* past reservations that have the same attributes is evaluated. Based on this information, if it is determined that reservations of this type have a 98% materialization rate, this factor is applied to the current reservation, using the yield management system 314 in a well-known manner. Using the prior art systems and methods, Flight 250 would be overbooked to 140% capacity to

> cover the historical tendency of this flight to have only a 60% materialization rate; with the present invention, however, each reservation for the current flight will be weighted based on *its* tendency to materialize, and a much more accurate booking will result.

(Specification 16:12 to 17:10) (emphasis in original).

From this disclosure it is possible to glean what Appellant means by "information unrelated to said particular perishable commodity." Specifically, reservation information for a commodity that is *not* the particular perishable commodity for which the potential purchase materialization forecasting is being conducted is unrelated to said particular perishable commodity. Any reservation information for the particular perishable commodity for which the potential purchase materialization forecasting is being conducted is related to said particular perishable commodity.

In the particular embodiment described in Appellant's Specification, the materialization rate for Flight 250 is being calculated. Thus, the "particular perishable commodity" is any seat on Flight 250. In making the calculation, Appellant's described system and method compares the past booking or reservation history of all flights, not just that of Flight 250, and compares it to the current reservation information. The past reservation information gathered and used for comparison thus includes reservation information for commodities that are not the seats on Flight 250, the "particular perishable commodity" at issue.

In the example presented by the Examiner (Ans. 11), two separate seats on the same flight may be reasonably considered "unrelated to said particular perishable commodity," as used by Appellant, only if it is the

materialization rate for the potential purchase of a particular seat (seat 4F, for example) on the flight, as opposed to any seat on that flight, that is being forecast. If, on the other hand, the potential purchase materialization rate for any seat on that flight is being forecast, as in Appellant's described embodiment, reservation information for every seat on that flight is related to the "particular perishable commodity."

In light of the above, we conclude Appellant's Specification does supply a standard for measuring the scope of the term "unrelated" and, more particularly, of the phrase "information unrelated to said particular perishable commodity," as used in Appellant's claims. The claims, therefore, are "amenable to construction" and not "insolubly ambiguous." The rejection of claims 1-26 as indefinite cannot be sustained.

The Prior Art Rejections

We also cannot sustain any of the rejections of claims 1-26 under 35 U.S.C. §§ 102 and 103, as they are all grounded in part on the Examiner's flawed determination that Jung discloses comparing the gathered system-wide reservation information unrelated to said particular perishable commodity and the current reservation information (Ans. 5). Jung's overbooking system outputs demand-based, oversale-based, and prediction-based booking levels for each flight for which a calculation is made (col. 5, ll. 1-45). The "particular perishable commodity" in Jung's system is thus any seat on a particular flight. Jung's system includes a main data base that stores system-wide historical information for flights for all passenger airplanes within the fleet (col. 3, ll. 28-48), thus satisfying the "gathering past system-wide reservation information . . . . , said system-wide past reservation information including information unrelated to said particular

perishable commodity" step of claim 1 and the "first subprocesses" recitation in claim 14. In computing the booking level for each flight, however, Jung's overbooking program 42 only uses information for that flight, not information for other flights (col. 5, l. 46 to col. 6, l. 68). Jung's overbooking system, therefore, does not compare gathered past system-wide information unrelated to said particular perishable commodity and current reservation information, as called for in claims 1 and 14, and claims 2 and 15 depending therefrom. It follows that the rejection of claims 1, 2, 14, and 15 as being anticipated[1] by Jung cannot be sustained.

The Examiner does not rely on or point to any teaching in either Eldering or Whitesage that makes up for the deficiency of Jung discussed above. The rejections of dependent claims 3-11 and 16-24 as being unpatentable over Jung in view of Eldering and dependent claims 12, 13, 25, and 26 as being unpatentable over Jung in view of Eldering and further in view of Whitesage thus also cannot be sustained.

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[1] To establish anticipation, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

SUMMARY

None of the rejections is sustained. The Examiner's decision is reversed.

REVERSED

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